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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

AUG 0 8 2003

REPLY TO THE ATTENTION OF

MEMORANDUM

SUBJECT: ENFORCEMENT ACTION MEMORANDUM - Determination of Need to Conduct Response Action at the Ellsworth Industrial Park Site, Downers Grove, DuPage County, Illinois (ID# B52A)

FROM: Mazin Enwiya, Remedial Project Manager
Remedial Response Branch #1 - Section #2

TO: William E. Muno, Director
Superfund Division

THRU: Rick Karl, Chief
Emergency Response Branch

I. PURPOSE

The purpose of this memorandum is to document the determination of the need to provide for a complete water hook-up to abate an imminent and substantial endangerment to public health and the environment posed by the presence of elevated levels of tetrachloroethylene (PCE), trichloroethylene (TCE), and other related volatile organic chemicals (VOCs) in groundwater at the Ellsworth Industrial Park site located in Downers Grove, DuPage County, Illinois.

The response action proposed herein will mitigate threats to public health and the environment posed by the presence of elevated levels of PCE, TCE, and other related VOCs in groundwater located at the site. The proximity of the site to residential properties and the detection of elevated levels of PCE, TCE, and other related VOCs in groundwater require that this response be classified as time-critical. It is anticipated that this response action will be funded by a group of responsible parties pursuant to an administrative order on consent (AOC).

This site is not on the National Priorities List, has not been ranked, does not set any precedents, and is not nationally significant.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID #'s ILN000508246

The Ellsworth Industrial Park site is located in Downers Grove, DuPage County, Illinois. The Site consists of a few dozen commercial/industrial companies. Information gathered by U.S. EPA indicates that several of these companies have and/or engaged in the use of chemicals that have been found in groundwater at the site.

The approximate boundaries of the Ellsworth Industrial Park site are Burlington Avenue to the north, Belmont Road to the east, Wisconsin Avenue to the south, and Interstate 355 (I-355) to the west. The approximate boundaries of the affected residential area are Wisconsin Avenue to the north, Plymouth Street to the east, 63rd Street to the south, Interstate 355 (I-355) to the west. The Ellsworth Industrial Park site is approximately 1000 acres in size. The Site includes a few dozen buildings throughout the industrial Park.

Between spring and fall 2001, the IEPA performed a groundwater investigation on the east side of I-355 near Downers Grove in response to citizen concerns related to recent private-well sampling in neighboring Lisle. The investigation consisted of three rounds of residential-well sampling throughout the area. Approximately 495 private wells were sampled and analyzed for levels of VOCs. Sample results indicated elevated levels of PCE, TCE, and other related VOCs. Approximately 52% of the samples collected during Round 1 and Round 2 contained PCE or TCE above 5 parts per billion (ppb) (the federal drinking-water standards and the State of Illinois Maximum Contamination Limit (MCL)).

In response to these findings, the IEPA performed a cone penetration test (CPT) investigation within the Ellsworth Industrial Park (Parsons, 2001). The investigation used a CPT rig to log the shallow lithology in the area and collect groundwater samples at a variety of depths above the bedrock in order to evaluate the source area(s) of the chlorinated solvent releases. The area of investigation included only the southern and southeastern-most portions of the industrial park along portions of Wisconsin, Elmore, and Inverness Avenues. During the investigation, the IEPA was able to collect three groundwater samples from two boring locations using the CPT sampler. Difficulties were encountered due to low groundwater inflow rates, which may be due to the tight clay soil found in the area of investigation. In the areas where the CPT sampler could not be used, temporary 3/4-inch polyvinyl chloride (PVC) piezometers were installed. The piezometers were screened over intervals ranging from approximately 20 to 35 feet. Twenty-eight groundwater samples were collected from 27 separate sampling locations within the industrial park. Of the 28 groundwater samples, only one sample (CPT-07, from 74.7 - 72.9 feet below ground surface (bgs)) contained TCE above the method detection limit.

In February 2002, U.S. EPA and IEPA conducted Phase I Site Assessment (SA) activities at selected locations within the industrial park. The IEPA conducted boring and sampling activities using a Geoprobe unit outfitted with a membrane interface probe (MIP) for soil logging and sample

collection. U.S. EPA's START contractor performed a follow-up CPT investigation throughout the industrial park and selected areas east of the park. The CPT rig was used to advance stratigraphy borings, which defined the geology at each location as well as identified the presence of water-bearing zones, through the unconsolidated overburden formations. Each boring was advanced to refusal, which ranged from approximately 12 to 80 feet bgs. A total of 44 locations were advanced using the CPT and Geoprobe MIP technology. Once the stratigraphy was characterized and the water-bearing zones were identified, depth intervals were selected for groundwater sampling. A total of 37 investigative groundwater samples were collected. Chlorinated solvents, including 1,1,1-TCA, PCE, TCE, and their common degradation products, were detected at several locations and at various concentrations within the industrial park. The highest concentrations were generally found to be present along Curtiss Street between Chase Street and Katrine Avenue. TCE was detected in shallow groundwater in this area at concentrations up to 218 microgram per liter (ug/L). The presence of TCE and PCE in shallow groundwater provides a potential link between source(s) in the industrial park and contamination observed in residential wells downgradient of the site.

Sediment sampling was performed at eight locations along the St. Joseph Creek during this investigation. These locations were selected based on the locations of outfalls IEPA identified in a previous stream survey conducted in 2001. Two samples were collected per location for a total of 16 investigative samples at approximate depths of 0 to 6 inches and 6 to12 inches. Each sediment sample was analyzed for VOCs. The following VOCs were detected in the stream-sediment samples: Acetone, Carbon disulfide, Chloromethane, Ethylbenzene, Methylene chloride, Methyl ethyl ketone (2-butanone), Toluene, Xylenes, total. Generally, these compounds were detected at low and/or estimated concentrations in the sediment samples. Many of the analytes were detected at concentrations below their method detection limits. No chlorinated solvents were detected in the stream sediment samples

START collected a total of 103 soil samples during the Phase II SA work. IEPA personnel collected an additional 50 soil samples from Geoprobe locations. Sampling locations were selected based on historical aerial-photo analysis, the results of Phase I SA investigations, information provided to the U.S. EPA on suspected areas of contamination or potential source materials, and/or the need to explore areas where little information was known. Each soil sample was analyzed for VOCs. Additionally, three soil samples were also analyzed for PCBs, SVOCs, metals, and TCLP constituents based on field observations and discussions with U.S. EPA.

The soil samples identified elevated levels of a number of VOCs in the soil. PCE in was detected in soils at levels as high as 120 mg/kg and TCE was detected in soils at levels as high as 500 mg/kg. Of the chlorinated solvents that were detected, cis-1,2-DCE, TCE, PCE, trans-1,2-DCE, and vinyl chloride exceeded Tier 1 migration to groundwater standard under 35 Illinois Admin. Code Part 742.

On August 1, 2002, U.S. EPA issued a general notice letter to a group of PRPs, notifying them of their potential liability for the presence of contaminants in soil and groundwater at the Site.

U.S. EPA issued a special notice letter to the PRPs at the Site, on October 11, 2002, initiating negotiations for performance of a Remedial Investigation/Feasibility Study ("RI/FS") and of appropriate interim response measures. As a result of these negotiations, a group of PRPs has agreed to conduct the actions described in this Enforcement Action Memorandum as a time critical response pursuant to a settlement with U.S. EPA.

III. THREATS TO PUBLIC HEALTH, WELFARE, OR THE ENVIRONMENT

Based on available information:

a. PRPs have owned or operated commercial/industrial facilities at the Site, which have been shown to have either historic use and/or release of VOCs as seen in Section II.

b. Sampling conducted by U.S. EPA and Illinois EPA has detected elevated levels of the VOCs including TCE, PCE and 1,1,1, trichloroethane 1,1-(TCA) in soil and groundwater at the Site.

c. Hydrogeological data gathered by U.S. EPA indicates that groundwater in the vicinity of the Site flows generally to the south and southeast.

e Illinois EPA sampled drinking water wells at approximately 546 homes located to the south and southeast of the Site. TCE was detected in wells at approximately 450 of those homes. PCE was detected in wells at approximately 352 of those homes. 1-1, TCA was detected in wells at approximately 325 of those homes.

f Of the roughly 546 drinking water wells sampled by Illinois EPA located to the south and southeast of the Site, approximately 109 exceeded the Maximum Contaminant Level (MCL) for TCE and approximately 83 exceeded the MCL for PCE.

g. The Village of Downers Grove and Du Page County estimate that approximately 800 homes downgradient of the Site and within 1-1/2 miles of the Site use groundwater as a source of drinking water.

Conditions at the Site present an imminent and substantial threat to human health, welfare, and the environment and meet the criteria for a response action as set forth in the National Oil and Hazardous Substance Contingency Plan, as amended (NCP). These factors include, but are not limited to the following:

i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances; this factor is present at the Site due to the presence of TCE and PCE contamination in [surface and subsurface soils and] groundwater which is used as a source of drinking water.

ii) actual or potential contamination of drinking water supplies or sensitive ecosystems; this factor is present at the Site due to the existence of groundwater that is contaminated with elevated concentrations of VOCs such as TCE and PCE, above MCLs. Residential drinking water supply wells in the immediate vicinity of the Site have been effected by this groundwater and the potential exists for further impacts due to contaminated soil and other source contamination which has been released.

iii) the unavailability of other appropriate Federal or State response mechanisms to respond to the release; this factor supports the actions required by this action memorandum because funds available through State and Federal grants still fall approximately $4.275 million short of the cost of connecting residents to public drinking water supply.

iv) high levels of hazardous substances, pollutants or contamination in soils largely at or near the surface that may migrate. This factor is present due to the existence of high concentrations of PCE and TCE that have been released to the soil. These levels are above IEPA's migration to groundwater standards and these compounds are heavier that water causing them to migrate downward to the bedrock aquifer, causing further groundwater contamination.

IV. ENDANGERMENT DETERMINATION

Given the Site conditions, and the presence of elevated levels of VOCs in soil and groundwater at the Site, the existing and potential exposure pathways to nearby populations described in Sections II and III above, if not addressed by implementing the response action selected in this action memorandum, may present an immediate and substantial endangerment to public health, or welfare, or the environment within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606 (a).

V. PROPOSED ACTIONS AND ESTIMATED COSTS

The following work must be completed to alleviate the potential and actual threats to human health and the environment posed by the hazardous substances present at the Site:

- Arrange to connect all homes in the affected area that remain on drinking water wells to a public drinking water supply;
- Arrange to seal all drinking water wells.

The response action described in this action memorandum will provide hookups for approximately 800 homes in unincorporated Downers Grove, DuPage County, Illinois, to a new water source. It is estimated that the portion of this response action not funded through State and Federal grants will

cost approximately $4.275 million to complete. U.S. EPA estimates that this response action will take approximately 15 months to construct.

The response actions described in this Memorandum directly address actual or threatened releases of hazardous substances, pollutants, or contaminants at the facilities in the affected area that may pose an imminent and substantial endangerment to public health and the environment.

The required response activity does not impose a burden on the affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

Applicable or Relevant and Appropriate Requirements

All applicable, relevant, and appropriate requirements (ARARs) of Federal and State law will be complied with to the extent practicable. A letter and a copy of the Consent Order will be sent to the IEPA requesting that it identify State ARARs. Any State ARARs identified in a timely manner will be complied with to the extent practicable.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Delay or no action will put exposed population at a greater risk. Immediate action is required at the Site due to an ongoing migration of the contaminants. Delayed non-action will result in an increased chance of direct contact threat to human ingestion and exposure to residents.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. ENFORCEMENT

The PRPs at this Site are identified, and have signed a Consent Order to perform the work described above. U.S. EPA expects that they can and will perform the selected response actions properly and promptly. For administrative purposes, information concerning confidential enforcement strategy for this Site is contained in the Enforcement Confidential Addendum.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Ellsworth Industrial Park site located in Downers Grove, DuPage County, Illinois. It was developed in accordance with CERCLA as amended, and is not inconsistent with the NCP. This decision is based upon the Administrative Record for the Site. Conditions at the Site meet the NCP Section 300.415 (b) (2) criteria for a removal and I recommend your approval of the proposed removal action. It is expected that the PRPs will provide funding for a complete water hook-up under the oversight of the RPM/OSC.

APPROVE: Wm. E. Muno DATE: 8/8/03
Director, Superfund Division

DISAPPROVE: _____ DATE: _____
Director, Superfund Division

cc: F. Nika, IEPA
B. Wallace, Illinois AG
Mark Chezik, U.S. DOI, **w/o Enf. Addendum**

ENFORCEMENT CONFIDENTIAL ADDENDUM

ELLSWORTH INDUSTRIAL PARK SITE
DOWNERS GROVE, DUPAGE COUNTY, ILLINOIS

ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY

(REDACTED 1 PAGE)

NOT RELEVANT TO THE SELECTION OF THE REMOVAL ACTION